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Intellectual Property & Global Policy

Matthew David - University of Durham

&

Debora J. Halbert - University of Hawai‘i at Mānoa

Abstract

This article discusses Intellectual Property Rights and in particular global IPR expansion. That globally protected intellectual property (IP) is more valuable than ever must be set against the fact that today's global network capitalism, in which IP is so valuable, also enables information to circulate beyond IP control. Similarly, global IP expansion and its resistance go hand in hand, as global IP expansionist policy contains but also encourages infringement. We document this conflict, the paradoxical space affording it, the boundary disputes that manifest it, and the global IP expansionist policy 'ratchet' designed, but which fails, to contain it. We then evaluate global IPRs and the case for extensions, as manifested in treaties

such as ACTA, TPP and TTIP. This evaluation is undertaken though specific examinations of *copyright*, *patent* and *trademark* laws. Claims for the overall social benefit of global IP harmonisation and expansion policies are rejected.

Global IP Harmonisation and Protection: A Paradoxical Ratchet

A triple paradox created by global network capitalism drives global IP expansionist policy in the post-Cold War age. *Globalisation*, *digital networks* and *capitalist markets* all extend the potential profitability of IP-rich, ‘immaterial’ content yet global and digital production and distribution networks also bypass IP regulation. Securing intangibles as ‘property’ enables monopoly prices, and hence encourages infringement. The very global networks and markets that global IP extensions can make more profitable for IP holders also facilitate the wider production and circulation of infringing copies. Such expansion of infringement is then said to warrant further extensions of IP regulation.

Defenders of stronger global IPRs argue that whilst extending the monopoly rents offered to innovators, through longer, wider and deeper IPR protection will increase incentives to infringe; such rewards must be maintained to encourage innovation (May, 2007a). If extending IPRs raise

prices and thereby increases incentives to infringe, the solution is stronger enforcement and tougher punishments (Patry, 2009). The argument for extension is then premised upon the assumption that IPRs are the most effective means of incentivising innovation and its distribution; and concludes that infringement should be treated as theft. Our approach is to evaluate the truth of this premise and conclusion.

We begin by firstly, outlining the three central paradoxes of global network capitalism, and then the boundary disputes that map IP expansion and its resistance. We then document today's global IPR expansion ratchet. The second half of this paper addresses the primary types of intellectual property – copyrights, patents and trademarks and shows how global IPR harmonisation and expansion has not increased incentives nor global social welfare. In conclusion, we argue that the global IP harmonisation and extension ratchet is self-perpetuating, but self-limiting, in securing a narrow interest; and because it does not secure greater incentive, innovation, nor access to new/better products, extension is not justified.

The Triple Paradox of Global Network Capitalism

Firstly, globalisation expands markets and yet simultaneously makes them less controllable. Globalisation expands markets for IP-protected

products, and hence offers increased profit opportunities. Outsourcing labour also reduces expense and increases competition between both workers and non-IP-protected manufacturers, who bid to actually produce IP-rich *physical* goods. Nonetheless, and paradoxically, outsourcing production and more distributed markets create flexible ‘global supply networks’ (Chon, 2015) that are hard to control. Permissive borders (for freight), global transport infrastructure and containerized shipping also make it difficult to control the circulation of infringing products. Global markets in technical labour mean knowledge circulates. Indeed, ‘counterfeit’ trademark goods and patent-infringing ‘pirate’ medicines are very often made in the very same factories to which IP holders outsourced production. The situation regarding copyright protected intangibles is even more extreme.

Secondly, global digital networks offer radically improved efficiency in production, distribution and marketing; but such efficiencies are only as useful to rights holders as they are to ‘end users’, who can now bypass paying rights holders. Digital networks have been promoted by, and promote the development of, transnational corporations (TNCs) as well as global finance, production and trade (Castells, 1996). Digital production, coordination and distribution reduce cost and allow global markets to be more easily serviced. Cost reduction is most extreme for copyrighted goods

that are purely informational; the most extreme case of ‘outsourcing’ gets end-users to produce and store their own copies, whilst paying the IP holder for permission to do so. Digitalization created the perfect ‘profit storm’ in media industries in the last years of the 20th century. Yet, global digital outsourcing is totally beyond regulation. Free-sharing software has caused a crisis, first in music (David, 2010), but now across all copyrighted fields. Digitalization services TNCs, but also empowers the networked individual who can now bypass IP-holders. Where once IP law regulated inter-firm competition, it is increasingly used – mainly unsuccessfully – to regulate individual end-users (Johns 2009).

Finally, contradiction exists between deregulation of labour markets and trade, and increased regulation of property rights (particularly IPRs). Global neoliberal capitalism (as distinct from ordoliberal competitive market maintenance: Crouch, 2011) combines intensified global regulation for property (especially IP), with increasing deregulation of raw material and labour markets. In fully deregulated global networks, intangibles would be free. Such non-rivalrous informational goods have no price unless scarcity is artificially maintained. Global neoliberal regimes maintain scarcity by regulating information as property; even whilst deregulating labour and raw materials to reduce price through competitive markets. As IP resides in

informational products, its protection requires monopoly over subsequent reproduction. The suspension of market entry (competition) requires other producers and all customers be prohibited from making ‘unlicensed’ copies. Yet, suspending market competition to protect property creates monopoly rent levels that place a significant cost burden upon the wider society. This encourages both ‘pirate capitalism’ and a ‘counterfeit culture’ (Rojek, 2015).

These paradoxes of global network capitalism destabilize attempts to assert full property rights in intangibles, even as such instability is what drives recourse to legal strategies to suspend ‘free’ markets, by means of IP monopolies. These paradoxes mean IP rich corporations need ever stronger regulations to reap profits from otherwise deregulated and ever expanded global sales and outsourcing opportunities, even as globalisation makes it impossible for any such regulatory regime to be fully enforced. IPRs balance the rights of owners and those of users. Expansion of IPRs over time, space, and in depth of coverage means more users pay more to rights holders for longer. Greater availability of counterfeit trademark goods, generic copies of patented products, and the ability to make free copies of formally copyright protected content shifts the balance the other way. This conflict is manifested in a range of disputes over where the boundary lies between what is protected and what is not.

Binaries in Dispute

IP expansion redraws the boundary between ownership and access to intangibles across all types of such rights. Many uses that would have once been acceptable are considered infringements today. Each IPR has, at its centre, a binary that is disputed in struggles over how far legal protection should extend.

Firstly, the binary distinction between *idea* and *expression* limits copyright protection. It is not possible to protect an idea, only tangible expression. However, the line between idea and expression has shifted. Once, film adaptations were distinct expressions relative to the books on which they were based. Today, adaptations require copyright clearance. Extending ‘expression’ to cover ‘look and feel’ widens protection and limits creative use. A stronger distinction between idea and expression allows more ‘creative’ play. Today’s IP defenders call this ‘theft’.

Secondly, recent IPR expansionist policies have shifted the binary between *discovery* and *invention*. Patent protection used to cover only *creations*, not discoveries. However, the genetics revolution in the biosciences has breached the discovery/invention distinction. Legal changes designed to commercialise this revolution, mean cell lines, tissue, genes,

organs and bacteria/viruses, as well as whole organisms: if they can be abstracted from nature, can now be patented (Leong, 2015).

A binary tension exists in trademark law as well, between private symbolic signature ‘marks’ and the public symbolic culture. When a symbol is commonly understood to represent a particular company or product, it is open to trademark protection. This domain has grown as TNCs assert trademarks worldwide, and as the domain of what can be designated trademark-able, relative to the common culture, has expanded. The rise of geographical indications (GIs) also extends the realm of symbolic possession deeper into what was once deemed the common culture.

In recent years, IP coverage has expanded ‘upstream’, from particular expressions, inventions and symbols, to encompass what were once considered pure ideas, discoveries and the common culture. IP coverage has also extended ‘downstream’, from tangible expressions, inventions and symbols, to the objects containing them. Where once the book, seed or record was the purchaser’s, even if the information embedded in it was not, today rights holders assert control not only over the information contained, but also over the seed, the ‘eBook’ and the ‘iTune’ - even after sale. Thus, the purchaser cannot legally resell or recopy their purchase. Once, a library

bought a journal and owned it. Now, electronic subscriptions mean back catalogues go if the library stops paying for the license (David, 1996).

However, boundary shifting also works in reverse, through the actions of *product users*. Digital technologies and biotechnologies both blur the distinctions between abstraction, tangible form and concrete object.

Formally IP-protected content is contained in every such object sold, but this IP content can be alienated from that object by users in the sense that users can replicate content themselves by making copies. From one CD, DVD, computer game or seed, unlimited numbers of others can potentially flow.

Technical attempts to lock down such content, whether by means of digital rights management (May, 2007b), or ‘terminator genes’ in GM seeds (David and Halbert, 2015) have, in most cases, either failed or proven so controversial as to have required suspension. As such, rights holders still seek legal protection over what they have failed to physically lock down. As boundaries shift in one direction regarding what can be done legally by users, whilst shifting in the opposite direction in terms of what users can substantively (if not lawfully) do, boundary shifting becomes boundary blurring.

Global IPR expansion has been sought as a means of regulating the paradoxical character of globalisation, digital networks and capitalism itself, by re-calibrating the boundaries between idea and expression, discovery and invention, and between cultural signs and signature brands/marks, in each case by expanding what can be owned. This containment, re-calibration and expansion agenda has been driven by and serves IPR holders, not the common good (Held, 2010). Policing everyone, everywhere, all the time, requires power, but the need to do so also manifests extreme vulnerability. This combination of power and vulnerability drives the global IP expansionist ratchet.

Expanding IP

Central to the international protection of IP is the World Intellectual Property Organization (WIPO). WIPO manages the Paris (patent) (1883) and Berne (copyright) (1886) treaties. However, the number of signatories to these first international IP treaties remained limited until the 20th century (see May, 2007a). The US decision, in 1988, to join Berne marked the start of today's global IP expansion and harmonisation ratchet. The US initially rejected foreign IP claims in the promotion of its own industrial and social development and was later relatively accepting of foreign infringements of

its own IP in enabling the development of its cold war allies (May and Sell, 2005). However, rising trade deficits with these ‘allies’, who had capitalised on US funded innovations (Archibugi and Filippetti, 2010; and Henry and Stiglitz, 2010), saw the US, and its IP rich TNCs (Sell, 2003), negotiate the replacement of the General Agreement on Tariffs and Trade (GATT) with the World Trade Organization (WTO). The WTOs first action, in 1994, was TRIPS, the Trade Related Aspects of Intellectual Property Agreement (Ryan, 1998). TRIPS required all WTO signatories to adopt a US led IP expansion and harmonisation programme. Linking IP harmonisation to global trade rules allowed non-compliance to be punished with trade sanctions.

GATT managed post-1945 global economic growth, eventually enabling Pacific Rim and Western European countries to challenge US industrial dominance. WTO/TRIPS offset this challenge by globally enforcing US advantage in IP, creating the conditions for a global network capitalism conducive to IP rich TNCs. However, global outsourcing, supply networks and digital distribution expanded access to intangibles beyond IP rights holder’s control. Paradoxically, WTO/TRIPS’ success generated expansion of what it was supposed to prevent, leading rights holders to calls

for further global IP extension, even whilst developing countries were becoming more critical inside WTO's (and WIPO's) *multilateral* fora.

Together, WIPO and WTO form the foundation for global IP today. However, both agencies are the focus of conflict between developed countries and the global south (Halbert, 2007). WTO and WIPO operate by *multilateral* negotiations between all member/signatory states. IP rich TNCs and developed states, in particular the US, were initially successful in using *multilateral* platforms to drive through significant IP extension and harmonisation agreements, such as TRIPS. However, TRIPS has subsequently gone through multiple phases of negotiation, resistance, and calibration, as developing societies became aware of what strong IP enforcement will cost them (Halbert 2005, Gervais, 2015, pp. 101-102). Similarly, WIPO has been pressed into adopting a development agenda that promotes affordable access, not simply extending IP (May, 2007a).

As such, other avenues are being pursued to expand IP protection well beyond TRIPS. The US has entered into 41 *bilateral* treaties since signing TRIPS to ensure better IP protection abroad (Moberg, 2014, pp. 232–233). There have also been numerous tailored *plurilateral* agreements.

The failed Anti-Counterfeit Trade Agreement (ACTA) sought to bypass the *multilateralism* of WIPO and TRIPS, in favour of more controlled negotiating environments (Yu, 2015). *Plurilateral*, ‘country club’, treaties, like ACTA, negotiated between the United States and geographically specific sets of partners (Gervais, 2015, p. 107), continue to take forward the global-IP-harmonisation agenda initially pursued through WIPO/TRIPS – if only by smaller steps. Such *plurilateral* agreements, negotiated in secret between governments and IP lobbyists, can be more tightly managed than could the relatively public *multilateral* negotiations of WIPO and WTO. However, when ACTA was finally proposed by the acceding states to their citizens, it was met with massive global protest - sufficient to halt passage. Just as ACTA sought to bypass the accommodations to developing nations achieved within *multilateral* settings like WTO and WIPO, so it was that worldwide resistance to ACTA, has produced a shift to even smaller sets of negotiating partners, which when added together encircle the globe. The Transpacific Partnership (TPP), negotiated between the United States and nine other pacific region countries, has continued forward with the ACTA agenda. The negotiations for TPP were also secret to all but the corporate ‘cleared advisors’ who helped draft the text (Levine, 2012, p. 128). Within the framework of TPP, human rights

are subordinated to IPRs, and TRIPS' flexibilities for developing countries have been stripped (Patel, 2015, p. 507). In parallel to TPP, the Transatlantic Trade and Investment Partnership (TTIP), currently being negotiated between the US and Europe, similarly includes more expansive IP protection, and a diminishing of checks and limits on IPRs relative to other rights and democratic principles. These agreements and parallel 'TRIPS plus' agreements signed between the US and other countries all prioritize IP extension over other rights (Moberg, 2014, p. 232).

Taken together, TPP and TTIP cover the bulk of the global economy (by GDP) pressing towards enhanced IP rights at the global level, by marginalising countries that embrace the flexibilities built into TRIPS. TRIPS created conditions conducive to the global expansion of an IP based business model, which itself, in promoting the growth of today's global network capitalism and world spanning IP monopoly rents, also afforded and incentivised higher levels of infringement. This has led to calls for even further regulation in what we call the global IP extension ratchet. If global IP harmonisation and extension best incentivised innovation and its distribution, such policies might be justified. Through an examination of copyright, patent and trademark respectively, we show that this is not the case.

Copyright

The 1709 Statute of Anne was the first copyright statute, offering up to 28 years protection on literary works in the United Kingdom (Ochoa and Rose, 2002). Today, under TRIPS all forms of expressive work from books, music, paintings, films and software, to statues and buildings, are copyright protected globally for the life of the author, plus fifty or even seventy years. From Berne to TRIPS, international treaties have prohibited a requirement to register copyright. Law is therefore retroactive in claims-making, producing uncertainty and hence increasing the risks associated with any subsequent creation; this is especially true when time, depth and geographical extension radically increase the parameters of what constitutes infringement. Uncertainty, and punitive damages where infringement is found, compounded by increased coverage over time, space and depth, intensify the scope for ‘litigation through the margins’ (Phythian-Adams, 2015, p. 37) - where powerful rights-holding corporations press infringement claims, even through multiple appeals, such that smaller actors are forced to concede as they cannot afford their own protracted defence. This inhibits creative expression and its distribution.

If the strong defence of established commercial actors actually best promoted creative work, as IP rich TNCs claim, this might justify such protection, and even its extension. However, it does not. Royalties-based contracts between authors/composers etc. and corporations sign over copyright in exchange for returns of between five and fifteen percent on net sales. However, as most of the cost associated with producing the work (producers, lawyers, managers, marketers, sound engineers, indexers, video makers, and so on) are set against these royalties, creative workers usually end up owing money to their record companies/publishers rather than getting paid; in this event, they would have been better off if they had been paid for their time as conventional employees (David, 2010). With most costs offset against royalties, the remaining eighty-five to ninety-five percent of net sales goes to the label/publisher, not the creative artist; thus, whilst most artists fail to 'recoup' (repaying the investment made in producing their work from royalties), their record company or publisher can still profit from their creations.

Dave O'Brien (2015) highlights how global copyright harmonisation/extension for the 'creative industries' has in recent years facilitated deregulation of working conditions for 'creative workers'. The royalties-based creative sectors, and the wider, IP-regulated, service-, design- and

brand-based economy, sees many working for nothing, indebted to those they sign rights over to, and/or in insecure non-formal employment. In contrast, copyright-infringing file-sharing reduces revenues to copyright-holding corporations. In doing so, file-sharing also reduces opportunity costs, relative to live performance. As such, concerts, festivals, plays, talks and other live events have seen ticket prices and volumes increase, benefiting performers (Krueger, 2004).

Attempting to regulate copyright in an age of global network distribution has required pervasive surveillance, and a shift in legal attention from commercial piracy to individual copying. The need to police everyone, everywhere requires expanded powers, reflecting the vulnerability of hierarchical, scarcity-based, systems in an age of horizontal, non-rivalrous distribution. Parallel digital revolutions based on selling and on sharing, respectively, face off against one another - from the CD to file-sharing, and from satellite 'pay to view' television to live-streaming (David, Kirton and Millward, 2015). There has been a legal and technical cat-and-mouse game of enclosure and evasion. Every attempt to clamp down has provoked a new level of distributed evading. With each round of regulative failure, calls for more draconian measures rise. New methods of defending the indefensible create added infringements of non-IP rights (Brown, 2015). Privacy, free

speech and access to the common culture are diminished. This does not benefit creative producers nor audiences; who benefit most from free-publicity and direct exchange through live events.

Attempts to enforce copyright on everyone, everywhere, for longer, also constrain future creative freedom. Extension of copyright in time, space and depth of coverage has led to disincentives to create, through intensified protection of past works. The dead cannot be incentivized, even if their back catalogues profit corporations. Whilst William Wordsworth campaigned for a seven-year continuation of copyright after death (to protect his extended family), his most creative work was carried out in renunciation of individual authorship and hence copyright (David, 2006).

Life plus seventy years, and non-registration, leaves archives full of orphan works (Op den Kamp, 2015) - archived music, film and television programmes, for instance - whose formal 'ownership' is unclear even up to one hundred years after production. Fear of punitive damages means much archival material remains buried. While some content is freed via illicit digital sharing networks, the act of digitizing constitutes infringement so large amounts of work remain incarcerated. Prosecution of fans for 'fan fiction' again highlights a fetish for control that may harm reception and

development of work which benefits from audience interaction (Liebler, 2015).

It might be imagined that computer games, being most vulnerable to infringement, and, having no 'live' alternative that might benefit from freely-shared publicity, would suffer most. The reverse is true. Whilst books, music, film and other older media have struggled to come to terms with digital distribution, computer games' revenues have overtaken all other media sectors. Computer game makers, whilst vocal in their disquiet about infringement, have grown precisely because they release new versions of games and new formats (the console and the online multiplayer environment) that render back catalogues worthless. Games companies outpace pirates. They do not rely on protectionism to uphold the value of past work. That every attempt to introduce encryption in the distribution of digital content has been hacked almost as soon as it has been released (David, 2010) gives some indication of the 'creative' capacity of online sharing-based programming, relative to the bunkered R&D departments of old-media corporations. The development of the fundamental operating systems on which modern computers operate, i.e., the Internet, its protocols, as well as the World Wide Web, as products of non-proprietary collaborations rather than of copyright-regulated ownership again illustrates

the strength of the creative commons compared to the thicketed terrain of copyrighted content (Lee, 2015). That Facebook still uses the central-server-based architecture Napster used in 1999, whilst file-sharing has moved through ever more sophisticated modes of distributed computing, again challenges the myth that copyright protection best incentivizes creativity.

Extending copyright does not best promote creativity or creation, and can make things worse. Protectionism fails to reward creative workers, and has facilitated deregulation of labour markets in the creative industries.

Copyright law creates uncertainty, additional risks and costs; all exacerbated by extension. Alternatively, infringement radically reduces opportunity costs as well as increasing publicity and revenues for live performance – hence benefiting those currently performing, rather than those rights holders (typically not the artists) controlling back catalogues. Games companies' creation of new products, rather than stretching out the commercial value of old stock, has - alongside the efforts of hackers, Internet protocol engineers and the creators of the Web - shown that creativity is best incentivized and achieved without recourse to copyright protection, let alone its extension.

The claims made by IP lobbyists, that the extension of IP protection such as would be afforded by TTIP and TPP is warranted, are false. Such extension would be harmful for creative workers, creativity and for the wider society.

Patents

Patentable subject matter has expanded beyond what was once understood as an original invention. Focused on inventions, patents began in 15th century Europe (Duffy, 2002, pp. 711–712), took off in the 19th century with the Paris Treaty (1883), and became central to trade in TRIPS today. TRIPS has globalised patent protection, requiring all member countries to provide minimum protections to all other member countries in terms of time (20 years), scope (products and process) for any patent meeting the criteria of novelty, inventiveness and industrial applicability.

The expansion and harmonisation of patents at the global level make the controversies around the depth, geographical reach and to a lesser extent duration of patents more salient. It raises questions regarding how patents are used, specifically when owning patents to secure monopoly rents has become more prominent. Firstly, *patent thickets* (when a company files multiple patents in an area of innovation in order to keep others from inventing in the field) inhibit innovation and intensify with global patent harmonisation and extension. By limiting scope for new innovators to enter the field, thickets are antithetical to ‘free markets’ where competition is supposed to improve quality. Often, because patents can be purchased when

companies are sold, thickets are associated with the existence of ‘patent trolls’. Patent trolls either file broad patents that can be used against numerous other inventors or purchase patents during a business transaction, and then makes money from enforcing something they acquired, not something they invented. Such people have a legal interest in defending the patents for money and see them only as a valuable commodity, not as something that might help produce what the U.S. Constitution requires -- ‘progress in the arts and sciences.’ In both cases, property-based ownership in a field dependent upon sharing ideas to create new things limits innovation and access. By dis-incentivizing cooperation and communication, the patent system itself works against innovation, not for it. Extending patent, whether in geographical scope, duration or in depth and range of potential coverage would only further intensify these problems.

Patent extension can also harm the public good by patenting life itself. Most scholars chart the beginning of the biotechnology revolution to the landmark United States Supreme Court decision *Diamond v. Chakrabarty* (Burger, 1980), when the Court extended patent protection to a genetically engineered microorganism. What was established in the US courts was subsequently extended globally via TRIPS when member countries were specifically prohibited from excluding microorganisms from patent

protection (a prohibition extending to the draft language of the TPP). Chakrabarty's case was among the first to distinguish between a living organism as found in nature and one created in the lab. The issue of laboratory creation versus natural discovery emerged again in the recent and highly publicized 2013 Myriad Genetics case heard by the United States Supreme Court. In Myriad, the Court determined that naturally occurring DNA could not be patented, but that *cDNA*, or complementary DNA, which is the product of laboratory work, could be (Barraclough, 2013) because cDNA was an invention (Leong, 2015, p. 677). Moreover, the extension of patents over DNA more generally (in the form of a patent thicket) allows a patent owner control at the level of the basic genetic marker. This means any use of the gene variant that predicts disease becomes the property of the patent holder, 'extending' property claims deep into biology and limiting scope for accessible treatment and future research.

Access to affordable medicine is also derailed by efforts to patent medicine and distribute it solely as patented drugs. The failed Anti-Counterfeiting Trade Agreement (ACTA) sought to abolish the legal distinction between counterfeit and generic drugs, a move supported by 'big pharma' in efforts to eliminate competition from generics and make access to medicine possible only under the terms of strong patent protection (Darch,

2015b, p. 639). TPP and TTIP press forward with a generics prohibiting agenda. In reality, patents create the monopoly rents that incentivize counterfeiters; generic medicines, meanwhile, in reducing prices, eliminate scope for profiteering by patent holders and counterfeiters alike. Generics do not undermine creative incentives. Most innovative drugs research is government/charity/university funded (Boldrin and Levine, 2008). The predominant commercial contribution is in clinical and post-clinical trials. Costing between two and four times the price of publicly funded trials, this ‘contribution’ allows patents, increases conflicts of interest, but serves no wider interest (Light and Warburton, 2005). Knowledge sharing, what Robert Merton (1973) called ‘academic communism’ is an essential foundation of science. In summary, generic medicines and public science maximize innovation, access and quality.

Yet another deeply problematic issue in the global expansion of patents is technology transfer. WIPO has considered regulatory frameworks to facilitate technology transfer an essential part of its mission virtually from its inception. WIPO continues to play a prominent role in acknowledging the importance of technology transfer with the 2007 Development Agenda. However, as an agency dedicated to IP, WIPO’s primary contribution is to create methods of licensing technology in the hope that such licenses will

create the conditions for technology transfer. However, at the same time, basic access to knowledge through access to textbooks is frowned upon as a copyright violation. Because there are myriad factors involved in technology transfer besides IP it is a complicated area of analysis. However, a heightened fixation on the IP aspects of technology transfer can hinder the flow of ideas between states, especially transfers from the developed to the developing world. Agricultural research, for example, has shifted from being a primarily public sector activity to being a commercialized and private sector one (David, 2005), thus enhancing the importance of IP in any technology transfer but also increasing the burden on the developing world to adhere to international IP norms. Matthew Rimmer's work on patents and environmental technologies shows patents are not a panacea for global development. In fact, the patent system, in limiting access to green innovations, compounds our modern ecological crisis (Rimmer, 2011).

Patenting seeds is another area where the global expansion of patents has undermined the public good. While TRIPS allows a country to exclude plant varieties from patent protection, a country can only do so if they have a viable sui generis form of protection in place. TPP and TTIP, alongside the 41 US led 'TRIPS plus' bilateral treaties noted above, seek to close these flexibilities within TRIPS. Such attention to commercial ownership stands in

opposition to agricultural history where farmers saved and shared seeds. The innovative overreach made possible by patents is the legal ability to continue to own seed after its sale. Today's seeds come with restrictive licensing agreements - giving ongoing and continued control over seed to major agro-businesses, also suggesting that technology transfer comes at a steep price for the global south. Farmers throughout the global south have resisted these seed practices but the law remains stacked against the farmer and is not a fair or open system of production or distribution of knowledge (Oguamanam, 2015). Developing countries have sought to limit Western patent extension by documenting traditional knowledge as 'prior art' (Thomas, 2015). However, the US (despite championing harmonisation) does not recognise unregistered, and sometimes even formally registered, 'prior art' practiced outside its territory (Halbert, 2005, pp. 146-148).

The uneasy relationship between traditional knowledge and patentable subject matter is another facet of alienation produced by the patent system. WIPO has linked indigenous and traditional knowledge within the global framing of intellectual property protection for almost two decades. Examining the efforts to share benefits with the San people for their knowledge of the properties of the Hoodia plant highlights some of the problems associated with using traditional knowledge in patent applications.

The San people(s) of Southern Africa have known about and used the Hoodia plant as an appetite suppressant for centuries (Darch, 2015a, p. 265). After the plant was commercialized and claims of biopiracy were made, there was an attempt to develop a benefits-sharing system. However, ‘San’ communities are dispersed across six African states, and non-‘San’ communities in these areas also claim Hoodia use as part of their ‘traditional knowledge’ (Dutfield, 2015, pp. 652-653). The benefits sharing created disputes over ‘San’ identity that must be worked through, since there is no single voice or authority to speak for and act on behalf of ‘their’ claim (Coombe et al., 2015). Using the patent system to protect innovations emerging from traditional knowledge has not proven helpful in formalising the complex and historically rooted indigenous knowledge systems from where the original innovation emerged. Controversies over the exploitation of a local indigenous community for the commercial market have been, in this case, accentuated rather than resolved. Poorer farmers, traditional or not, lose more than they gain by the patent system.

We now live in a world where access to food, medicine, clean drinking water, and much more are regulated by patents. While patents last for a limited time, patent thickets mean a product’s entry into the public domain may not be that simple - or even guaranteed. Indeed, rights holders

increasingly wrap products and processes in layers of IP (from patents, to trademarks, to copyrights), and, increasingly, do not sell products to users but rather license them for specific uses. Further extension of IP will only compound existing problems.

Trademark and Geographical Indicators

While trademarks existed as early as the 16th century (Stolte, 1998, pp. 507–508), they became significant only after the industrial revolution and the growth of national markets and mass-produced branded products (Merges, 2000, pp. 2206-2207). Trademarks have expanded over time, and also now encompass the colours, sounds and phrases associated with a specific product or company. In some cases, trademark identification has become more important than the underlying product (Klein, 2009). Trademarks and geographical indications have no time limitation (subject to ongoing registration), thus preserving the past rather than incentivizing innovation. Global harmonisation and extension has then primarily widened geographical reach and depth of protection, not trademark's duration in time.

Global network capitalism increases the market size for trademarked ('branded') goods even as global supply networks (Chon, 2015) radically reduce, by means of outsourcing, the cost of producing 'branded' things.

Moreover, such outsourcing sees physical production and physical product being increasingly detached from the symbolic valuation of goods. Increased market size combined with cost cutting, then, increases the value of trademarked brands so long as the mark can be controlled. Outsourcing combined with increasingly widely distributed global supply networks, however, also makes counterfeiting easier. Counterfeiters often use the same outsourced factories and distributed supply networks as mark holders; meaning the lawful and unlawful product only differ in who is selling it. This is almost by definition true for outsourced fashion goods. In the case of medicine and mechanical parts – where patents covers the substantive content – counterfeiting may well involve deception. For ‘empty signifiers’, however, where the sign is everything and substance was outsourced anyway, the counterfeit and the legitimate copy reveal/deceive in equal measure.

Trademarks do not protect the consumer from deception. As Chon notes (2015), trademark protects mark holders from ‘tarnishment’ if another company trades goods using the first company’s mark. Trademark does *not* protect the customer from the lawful rights holder trading goods made by others as ‘its own’. Through global outsourcing, that is exactly what trademark holders do. Trademarks thus actually facilitate a kind of ‘auto-

tarnishment'. Significantly, the use of marks and brands in the creation of 'social imaginaries' around symbols that are themselves then associated with mass-produced (and outsourced) commodities is central to today's 'cognitive capitalism' (Chon, 2015). Cognitive capitalism's manufacture of such imaginaries, using marks and brands, is central to distancing products from the conditions of their production, and illustrative of the commodity fetishism that embeds symbolic meaning in things in direct counter-distinction from their substantive reality (in content and creation). Chon (2015) argues that forms of 'brand citizenship' can 'shine a light' upon the hidden victims of today's global supply networks - networks in which trademarks act as core bridges for TNCs to control profits from things they do not physically make or distribute, whilst at the same time being core to consumer 'seduction' regarding what it is they are buying. Brand citizenship, then, seeks to play cognitive capitalism's social imaginaries against themselves, seeking to make TNCs live up to the illusions they seek to create. Counterfeit capitalism, meanwhile, seeks to play cognitive capitalism's game in quite a different fashion.

If trademarks are central to maintaining an imaginary relationship between signs and things, the counterfeit capitalism of those who hijack marks and brands to sell copies mimics both the product and the practice of

that which it seeks to parasitize. The consumer of such goods is no more or less 'deceived' in buying such counterfeit couture than if they were buying 'the real thing'. Chris Rojek (2015) suggests 'counterfeit culture' trades symbolic fictions culturally just as 'counterfeit capitalists' and legitimate rights holders trade economically in such 'social imaginaries'. Where counterfeit drugs and other technical goods can kill, fake fashion, for example, just plays cognitive capitalism's social imaginary at its own game, if at a price more people can afford. Ultimately, just as patent monopolies inflate the price of medicines and hence create the market for counterfeit drugs (something that generic drugs deflate and hence protect citizens from), so trademarks create levels of monopoly rent that create the very incentives to (infringing) market entry that are manifested in piracy and counterfeiting. Having outsourced substantial 'aura' and 'verisimilitude' in things for globally pervasive, detachable and recognizable signs of 'authorization', this at first profitable strategy of trademarking now removes both the ability to control such signs and the grounds for claiming doing so would in any way benefit consumers. As such, contemporary efforts to secure trademark extension in depth and geographical reach do not serve the public interest.

Geographical indications (GIs) have arisen since the TRIPS agreement, as a means of extending protection akin to that of trademark over

goods with particular geographical associations. (Related rights over place names already existed in the case of such location-specific consumables as European wines and cheeses.) Advocates hoped GIs would empower local communities otherwise marginalized by global network capitalism's deregulation of labour and raw materials markets. However, this has not proven to be the case. Rosemary Coombe et al. (2015) and Colin Darch (2015a) highlight how the GI for Rooibos tea reinforced the power of large scale, white farmers and processing factory owners over non-white farm labourers and small holders. Anita Chan (2014) demonstrates similar processes playing out in Peru. Daniel Gade (2004) details how precursors to GIs in France enabled the exclusion of migrant farmers even over many generations. In fostering the image of a harmonious 'locale' when seeking to sell a product as authentically local, the 'social imaginaries' manufactured around GIs - just like the branding tied to trademarks - obscure inequalities that need to be addressed if benefits of protection are to reach the most marginalized and exploited members of the supply network.

The extension of trademark coverage in geographical scope and depth of coverage, in extending protection and profitability to rights holders over established cultural symbols, neither protects consumers, nor encourages innovation. Extending the logic of trademarks to traditional and local

knowledge in the form of ‘Geographical Indications’ (in parallel also with attempts to extend patent principles to cover traditional knowledge and farmers rights) similarly only reinforces dominant interests, not the common good.

Conclusions

The policy implications of our analysis rest upon our demonstration of deep flaws in the assumptions underpinning the argument for global IP harmonisation and extension. These flaws are summarised in Table 1. [Insert Table 1 near here] Global network capitalism reduces costs for informational content and increases sales, as long as control over content is maintained. As such, global network capitalism incentivizes demand for IP extension. If control over content is maintained, it also affords the revenues necessary to lobby for such extension. However, IP holders’ need for such extension reflects their increased vulnerability in a global networked free market, where IP-infringing reproductions are now easier to produce - and *are* produced and circulated more widely than ever before, with much capacity to do so now lying in the hands of every networked computer user on the planet. To achieve control, then, it is now necessary to monitor and regulate the behaviour of everyone, everywhere, all the time. This requires a radical

escalation of surveillance and policing, infringing a range of other rights: to privacy, fair use, free speech and access to information. Doing so only protects particular private interests, not the wider social interest. *Our first policy recommendation is thus to reverse the trend towards criminalizing acts labelled as 'piracy.'* Non-commercial IP infringement should not be subject to the types of surveillance now being structured to control it. In an effort to de-escalate the enhanced surveillance that corresponds to more restrictive applications of IP rights, the trend should be towards decriminalization.

Extension in time and geographical reach does not create additional incentives, only increasing the profitability of things already produced - a benefit to rights holders at the expense of a greater cost burden upon the wider society. There is no additional benefit to the wider society, but extension does increase the scope of protection to choke off future innovation (such as was seen in the cases of orphan works, trolling and thickets). *Thus, our second policy recommendation is that the length of time in which IP rights are protected be reduced not expanded. Additionally, and third, forcing all developing countries to enact strong IP rights before they are ready to do so should be halted.*

Extension in ‘depth of coverage’ (such as over living organisms, DNA and the ‘look and feel’ of certain expressions and designs) would allow new domains of ownership, and so perhaps increase incentives to create.

However, extending control deeper into abstract ideas relative to particular expressions, in discoveries relative to inventions, and in carriers (such as seeds and ‘eBooks’) relative to their informational content, would require unprecedented levels of policing; it would also enable so great a control over subsequent innovations as to do more harm than good - both in terms of immediate infringement of other rights, and, in the longer term, choking off of innovation. *And so our fourth policy recommendation is we do not offer further coverage of abstractions.*

Further extensions of IPRs are not warranted. That citizens have been excluded from the negotiating process has led to disquiet: firstly, because citizens are not being consulted; and secondly, because the implications of such extensions would ‘target’ citizens as both object of increased surveillance and of increased costs. Whilst deregulation is used to reduce protections and rights for most, regulation is promoted to increase protection for property holders. Those who do not benefit from such inconsistency vote increasingly with their feet – whether that means campaigning against extension, resisting existing protectionism, or in bypassing or ignoring IPRs

altogether. The global networked world, as we have seen, makes this increasingly possible.

References

Archibugi, D. and Filippetti, A. (2010) 'The Globalisation of Intellectual Property Rights: Four Learned Lessons and Four Theses', *Global Policy*, 1 (2), pp. 137-49. DOI: 10.1111/j.1758-5899.2010.00019.x

Barracclough, E. (2013) 'What Myriad Means for Biotech', *WIPO Magazine* [online]. August. Available from:
http://www.wipo.int/wipo_magazine/en/2013/04/article_0007.html
[Accessed May 31, 2016].

Boldrin, M. and Levine, D. K. (2008) *Against Intellectual Monopoly*. Cambridge: Cambridge University Press.

Brown, I. (2015) 'Copyright Technologies and Clashing Rights', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 567–85.

Burger, W. E. (1980) 'Diamond v. Chakrabarty - 447 U.S. 303 (1980)', *Justia US Supreme Court Center* [online]. 16 June. Available from:

<http://supreme.justia.com/cases/federal/us/447/303/case.html> [Accessed May 31, 2016].

Castells, M. (1996) *The Rise of the Network Society*. Oxford: Blackwell.

Chan, A. (2014) *The Promiscuity of Networks: Digital Universalism and Local Farmers in the Information-Age*. Cambridge, MA: MIT Press.

Chon, M. (2015) 'Slow Logo: Brand Citizenship in Global Value Networks', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 171–88.

Coombe, R. J., Ives, S., and Huizenga, D. (2015) 'The Social Imaginary of Geographical Indicators in Contested Environments: The Politicized Heritage and the Racialized Landscapes of South African Rooibos Tea', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 224–37.

Crouch, C. (2011) *The Strange Non-Death of Neo-Liberalism*. Cambridge: Polity.

Darch, C. (2015a) 'The Political Economy of Traditional Knowledge, Trademarks and Copyright in South Africa', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 263–78.

Darch, C. (2015b) 'Politics, Law and Discourse: Patents and Innovation in Post-Apartheid South Africa', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 631–48.

David, M. (1996) 'Information: Culture or Capital?', *Radical Philosophy*, 79 (Sep/Oct), p. 56.

David, M. (2005) *Science in Society*. Basingstoke: Palgrave.

David, M. (2006) 'Romanticism, Creativity and Copyright: Visions and Nightmares', *European Journal of Social Theory*, 9 (3), pp. 425–33. DOI: 10.1177/1368431006066566.

David, M. (2010) *Peer to Peer and the Music Industry: The Criminalization of Sharing*. London: Sage.

David, M. and Halbert, D. (2015) *Owning the World of Ideas: Intellectual Property and Global Network Capitalism*. London: Sage

David, M., Kirton, A., and Millward, P. (2015) 'Sports Television Broadcasting and the Challenge of Live-Streaming', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 435–50.

Duffy, J. F. (2002) 'Harmony and Diversity in Global Patent Law', *Berkeley Technology Law Journal*, 17, pp. 685–726. DOI: 10.15779/Z386Q39

Dutfield, G. (2015) 'Traditional Knowledge, Intellectual Property and Pharmaceutical Innovation: What's Left to Discuss?', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 649–64.

Gade, D. (2004) 'Tradition, Territory, and Terroir in French Viniculture: Cassis, France, and Appellation Contrôlée', *Annals of the Association of American Geographers*, 94 (4), pp. 848–67. DOI: 10.1111/j.1467-8306.2004.00438.x.

Gervais, D. (2015) 'TRIPS and Development', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 95–112.

Ghosh, S. (2015) 'The Idea of International Intellectual Property', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 52–70.

Halbert, D. (2005) *Resisting Intellectual Property*. New York: Routledge.

Halbert, D. (2007) 'The World Intellectual Property Organization: Past, Present and Future', *Journal of the Copyright Society of the U.S.A.*, 54 (2): pp. 253–84.

Held, D. (2010) *Cosmopolitanism: Ideals and Realities*. Cambridge: Polity.

Henry, C. and Stiglitz, J. (2010) 'Intellectual Property, Dissemination of Innovation and Sustainable Development', *Global Policy*, 1 (3), pp. 237-51.
DOI: 10.1111/j.1758-5899.2010.00048.x

Johns, A. (2009) *Piracy: From Guttenberg to Gates*. Chicago, IL: University of Chicago Press.

Klein, N. (2009) *No Logo*. New York, NY: Picador.

Krueger, A. B. (2004) 'The economics of real superstars: the market for rock concerts in the material world.' *Journal of Labor Economics* [online]. 23 (1), pp. 1–30. Available from:

<http://dataspace.princeton.edu/jspui/bitstream/88435/dsp016108vb25k/1/484.pdf> [Accessed May 31, 2016].

Lee, J-A. (2015) 'Non-profits in the Commons Economy', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 335–54.

Leong, S.H.S. (2015) 'Patentable Subject Matter: A Comparative Jurisdictional Analysis of the Discovery/Invention Dichotomy', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 665–84.

Levine, D. S. (2012) 'Bring in the Nerds: Secrecy, National Security, and the Creation of International Intellectual Property Law', *Cardozo Arts & Entertainment Law Review*, 30, pp. 105–51.

Liebler, R. (2015) 'Copyright and Ownership of Fan Created Works: Fanfiction and Beyond', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 391–403.

Light, D. and Warburton, R. (2005) 'Extraordinary Claims Require Extraordinary Evidence', *Journal of Health Economics*, 24, pp. 1030–33.
DOI: 10.1016/j.jhealeco.2005.07.001.

May, C. (2007a) *The World Intellectual Property Organisation: Resurgence and the Development Agenda*. London: Routledge.

May, C. (2007b) *Digital Rights Management: The Problem of Expanding Ownership Rights*. Oxford: Chandos.

May, C. and Sell, S. (2005) *Intellectual Property Rights: A Critical History*. Boulder, CO: Lynne Rienner Publishers.

Merges, R. P. (2000) 'Symposium on Law in the Twentieth Century: One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000', *California Law Review*, 88 (December), pp. 2187–240.

Merton, R. (1973) *The Sociology of Science*. Chicago, IL: University of Chicago Press.

Moberg, K. (2014) 'Private Industry's Impact on U.S. Trade Law and International Intellectual Property Law: A Study of Post-TRIPS U.S. Bilateral Agreements and the Capture of the USTR', *Journal of the Patent and Trademark Office Society*, 96 (2), pp. 228–56.

O'Brien, D. (2015) 'Creativity and Copyright: The International Career of a New Economy', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 315–30.

Ochoa, T. T., and Rose, M. (2002) 'Anti-Monopoly Origins of the Patent and Copyright Clause', *Journal of the Patent and Trademark Office Society*, 84 (12), pp. 909–40.

Oguamanam, C. (2015) 'Farmers' Rights and the Intellectual Property Dynamic in Agriculture', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 238–57.

Op den Kamp, C. (2015) 'Copyright and Film Historiography: The Case of the Orphan Film', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 404–17.

Patel, R. (2015) 'A Public Health Imperative: The Need for Meaningful Change in the Trans-Pacific Partnership's Intellectual Property Chapter', *Minnesota Journal of Law, Science & Technology*, 16 (1), pp. 477–507.

Patry, W. (2009) *Moral Panics and the Copyright Wars*. Oxford: Oxford University Press.

Phythian-Adams, S. L. (2015) "'The Economic Foundations of Intellectual Property': An Arts and Cultural Economist's Perspective", in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 28–51.

Rimmer, M. (2011) *Intellectual Property and Climate Change: Inventing Clean Technologies*. Cheltenham: Edward Elgar.

Rojek, C. (2015) 'Counterfeit Commerce: The Illegal Accumulation and Distribution of Intellectual Property', in M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*. London: Sage, pp. 189–206.

Ryan, M. (1998) *Knowledge Diplomacy: Global Competition and the Politics of Intellectual Property*. Washington, DC: Brookings Institution Press.

Stolte, K. M. (1998) 'How Early Did Anglo-American Trademark Law Begin? An Answer to Schechter's Conundrum', *Fordham Intellectual Property, Media & Entertainment Law Journal*, 8 (2), pp. 505–46.

Sell, S. (2003) *Private Power, Public Law: The Globalization of Intellectual Property Rights*. Cambridge: Cambridge University Press.

Thomas, P. (2015) 'Copyright and Copyleft in India: Between Global Agencies and Local Interests', in M. David and D. Halbert (eds), *Sage Handbook of Intellectual Property*. London: Sage, pp. 355–69.

Yu, P. (2015) 'Deja Vu in the International Intellectual Property Regime', in
M. David and D. Halbert (eds) *Sage Handbook of Intellectual Property*.
London: Sage, pp. 113–29.

Table 1: The Consequences of IP Expansion

IP Expansion in Time, Depth and/or Reach	Disincentive	Consumer Harm	Producer Harm
Copyright	Extends Uncertainty; Defends Increasingly Old Ideas; Inhibits Novel Uses	Escalates Prices; Reduces Access	Increases Opportunity Costs; Increases Insecure Non-Employment
Patent	Increases Thickets; Encourages Trolls; Reduces Collaboration	Increases Prices; Reduces Access; Encourages Counterfeits	Failure to Reward Traditional Producers; Increases Exploitation and/or Exclusion of Traditional Producers, Farmers etc.
Trademark/GIs	Perpetual Reward for Old over the New	Auto-Tarnishment; Encouraging Outsourcing, Reducing Quality and Transparency	Increasing Outsourcing Reduces Worker Conditions; Failure to Improve Conditions for Traditional and/or Primary Producers

Matthew David has authored *Peer to Peer and the Music Industry*: (Sage 2010), and *Science in Society* (Palgrave 2005). His forthcoming book will be entitled *Sharing: Crime Against Capitalism?* His work focuses on the interface of sharing, technology and law.

Debora Halbert has authored *The Politics of Expanding Ownership Rights* (Quorum 1999), *Resisting Intellectual Property* (Routledge 2005) and *The State of Copyright* (Routledge 2014). Her books and articles focus on the politics and culture of intellectual property law and technology.

Together they co-authored *Owning the World of Ideas* (Sage 2015), and co-edited *The Sage Handbook of Intellectual Property* (Sage 2015).